CLAIM AMENDMENTS

WHAT IS CLAIMED IS:

This listing of the claims will replace all prior versions, and listing, of claims in the application:

1. **(Currently Amended)** **A** ~~C~~control method for an actuator ~~(1-4)~~ of an injector of a fuel injection system for an internal combustion engine, ~~**which method has**~~ **comprising** the following steps:

- specifying a target value ~~**(SOI_{SOLL})**~~ for the start of injection, ~~**and**~~
- electrically controlling the actuator ~~**(1-4)**~~ at a specific trigger time ~~**($t_{TRIGGER}$)**~~ with a specific actuator energy ~~**(E)**~~,

~~**characterized by the following steps:**~~

- detecting an actual value ~~**($SOI1_{IST}$, $SOI2_{IST}$, $SOI3_{IST}$, $SOI4_{IST}$)**~~ at the start of injection,
- determining a deviation ~~**($\Delta SOI1$, $\Delta SOI2$, $\Delta SOI3$, $\Delta SOI4$)**~~ between the target and actual values at the start of injection, and
- setting the actuator energy ~~**(E)**~~ as a function of the deviation ~~**($\Delta SOI1$, $\Delta SOI2$, $\Delta SOI3$, $\Delta SOI4$)**~~ between the target and actual values at the start of injection for controlling the start of said injection.

2. **(Currently Amended)** A ~~C~~control method according to claim 1**, wherein**

~~**c h a r a c t e r i z e d i n t h a t**~~

controlling takes place jointly for a plurality of actuators ~~**(1-4)**~~ by setting the actuator energy ~~**(E)**~~ jointly for a plurality of actuators ~~**(1-4)**~~.

3. (**Currently Amended**) A ~~C~~control method according to claim 2**, further comprising**

~~**c h a r a c t e r i z e d b y**~~

the following steps:

- detecting the actual value ~~**($SOI1_{IST}$, $SOI2_{IST}$, $SOI3_{IST}$, $SOI4_{IST}$)**~~ at the start of injection separately for the individual actuators ~~**(1-4)**~~,
- determining the deviation ~~**(ΔSOI1, ΔSOI2, ΔSOI3, ΔSOI4)**~~ between the target and actual values at the start of injection separately for the individual actuators ~~**(1-4)**~~,
- determining the mean deviation ~~**(ΔSOI)**~~ between the target and actual values at the start of injection for a plurality of actuators ~~**(1-4)**~~, and
- setting the actuator energy ~~**(E)**~~ jointly for a plurality of actuators ~~**(1-4)**~~ according to the mean deviation ~~**(ΔSOI)**~~ between the target and actual values at the start of injection.

4. **(Currently Amended)** A ~~C~~control method according to claim 1**, wherein** ~~**c h a r a c t e r i z e d i n t h a t**~~

controlling takes place individually for in each case one of a plurality of actuators ~~**(1-4)**~~, with the actuator energy ~~**(E)**~~ being set in each case on an actuator-specific basis.

5. (Currently Amended) A ~~C~~control method according to claim 4, further comprising ~~c h a r a c t e r i z e d b y~~ the following steps:

- detecting the actual value ~~($SOI1_{IST}$, $SOI2_{IST}$, $SOI3_{IST}$, $SOI4_{IST}$)~~ at the start of injection separately for the individual actuators ~~(1-4)~~,
- determining the deviation ~~($\Delta SOI1$, $\Delta SOI2$, $\Delta SOI3$, $\Delta SOI4$)~~ between the target and actual values at the start of injection separately for the individual actuators ~~(1-4)~~, and
- setting the actuator energy ~~(E)~~ separately for the individual actuators ~~(1-4)~~ as a function of the respective actuator-specific deviation ~~($\Delta SOI1$, $\Delta SOI2$, $\Delta SOI3$, $\Delta SOI4$)~~ between the target and actual values at the start of injection.

6. **(Currently Amended)** A ~~C~~control method according to claim 1, wherein ~~one of the preceding claims c h a r a c t e r i z e d i n t h a t~~ the trigger time ~~($t_{TRIGGER}$)~~ for controlling the actuators ~~(1-4)~~ is set independently of the deviation ~~($\Delta SOI1$, $\Delta SOI2$, $\Delta SOI3$, $\Delta SOI4$)~~ between the target and actual values at the start of injection.

7. **(Currently Amended)** **A** ~~C~~control method according to **claim 1, wherein** ~~one of claims 1 to 5~~ ~~characterized in that~~

as part of controlling and in addition to setting the actuator energy ~~(E)~~, the trigger time ~~($t_{TRIGGER}$)~~ is also set as a function of the deviation ~~(ASOI1, ASOI2, ASOI3, ASOI4)~~ between the target and actual values at the start of injection for controlling said start of injection.

8. **(Currently Amended)** **A** ~~C~~control method according to claim 7**, wherein** ~~characterized in that~~

the actuator energy ~~(E)~~ is set jointly for a plurality of actuators ~~(1-4)~~ while the trigger time is set separately for the individual actuators ~~(1-4)~~.

9. **(Currently Amended)** **A** ~~C~~control method according to **claim 1, wherein** ~~one of the preceding claims~~ ~~characterized in that~~

the actual value ~~($SOI1_{IST}$, $SOI2_{IST}$, $SOI3_{IST}$, $SOI4_{IST}$)~~ at the start of injection is detected by means of a seat contact switch ~~(6-9)~~, with said seat contact switch ~~(6-9)~~ detecting a valve needle position of the injector.

10. (Currently Amended) **A** ~~C~~control method according to **claim 1, wherein** ~~one of the preceding claims~~ ~~characterized in that~~

the actuator energy ~~(E)~~ is set within the scope of controlling on a discrete time and/or on a discrete value basis.

11. **(Currently Amended)** **A** ~~C~~control device for an actuator ~~(1-4)~~ of an injector for a fuel injection system of an internal combustion engine, ~~**which device has**~~**comprising**

- a controlling element ~~(5, 5.1-5.4)~~ for electrically controlling the actuator ~~(1-4)~~ at a specific trigger time ~~($t_{TRIGGER}$)~~ with a specific actuator energy ~~(E)~~ ~~**characterized by**~~

- a measuring device ~~(6-10)~~ for detecting an actual value ~~($SOI1_{IST}$, $SOI2_{IST}$, $SOI3_{IST}$, $SOI4_{IST}$)~~ at the start of injection, **and**

- a first controller ~~(16, 16.1-16.4)~~ for setting the actuator energy ~~(E)~~ as a function of a deviation ~~($\Delta SOI1$, $\Delta SOI2$, $\Delta SOI3$, $\Delta SOI4$)~~ between the measured actual value ~~($SOI1_{IST}$, $SOI2_{IST}$, $SOI3_{IST}$, $SOI4_{IST}$)~~ at the start of injection and a pre-specified target value ~~(SOI_{SOLL})~~ at the start of injection.

12. **(Currently Amended)** **A** ~~C~~control device according to claim 11**, wherein**

~~**characterized in that**~~

the actuator energy ~~(E)~~ can be set jointly within the scope of controlling for a plurality of actuators ~~(1-4)~~.

13. **(Currently Amended)** A ~~C~~control device according to claim 12, comprising~~c h a r a c t e r i z e d b y~~

a computing unit ~~(15)~~ for calculating a mean value ~~(ΔSOI)~~ of the deviation ~~(ΔSOI1, ΔSOI2, ΔSOI3, ΔSOI4)~~ between the target and actual values at the start of injection for a plurality of actuators ~~(1-4)~~, with the first controller ~~(16)~~ setting the actuator energy ~~(E)~~ for a plurality of actuators ~~(1-4)~~ in keeping with the mean value ~~(ΔSOI)~~.

14. **(Currently Amended)** A ~~C~~control device according to claim 11, wherein~~c h a r a c t e r i z e d i n t h a t~~

the actuator energy ~~(E)~~ can be set individually within the scope of controlling for a plurality of actuators ~~(1-4)~~.

15. **(Currently Amended)** A ~~C~~control device according to claim 11, comprising ~~one of claims 11 to 14~~ ~~c h a r a c t e r i z e d b y~~

a second controller ~~(18)~~ for setting the trigger time ~~($t_{TRIGGER}$)~~ for controlling the actuator ~~(1-4)~~ as a function of the deviation ~~(ΔSOI1, ΔSOI2, ΔSOI3, ΔSOI4)~~ between the measured actual value ~~($SOI1_{IST}$, $SOI2_{IST}$, $SOI3_{IST}$, $SOI4_{IST}$)~~ at the start of injection and the pre-specified target value ~~(SOI_{SOLL})~~ at the start of injection.

16. **(Currently Amended)** A ~~C~~control device according to claim 11, wherein ~~one of claims 11 to 15~~ ~~c h a r a c t e r i z e d i n t h a t~~

the measuring device ~~(6-10)~~ has a seat contact switch ~~(69)~~ which detects a valve needle position of the injector.

17. **(NEW)** A control method for an actuator of an injector of a fuel injection system for an internal combustion engine, comprising the following steps:

- specifying a target value for the start of injection,
- electrically controlling the actuator at a specific trigger time with a specific actuator energy,
- detecting the actual value at the start of injection separately for the individual actuators,
- determining the deviation between the target and actual values at the start of injection separately for the individual actuators,
- determining the mean deviation between the target and actual values at the start of injection for a plurality of actuators, and
- setting the actuator energy jointly for a plurality of actuators according to the mean deviation between the target and actual values at the start of injection.

18. **(NEW)** A control method according to claim 17, wherein the trigger time for controlling the actuators is set independently of the deviation between the target and actual values at the start of injection.

19. **(NEW)** A control method according to claim 17, wherein as part of controlling and in addition to setting the actuator energy, the trigger time is also set as a function of the deviation between the target and actual values at the start of injection for controlling said start of injection.

20. **(NEW)** A control method according to claim 19, wherein the actuator energy is set jointly for a plurality of actuators while the trigger time is set separately for the individual actuators.